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UTILITY PATENT APPLICATION TRANSMITTAL LETTER

Assistant Commissioner of Patents
Box Patent Application
Washington, D.C. 20231

Sir:

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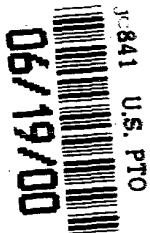
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Title: "METHODS AND APPARATUS FOR PROVIDING TELEPHONE
SUPPORT FOR INTERNET SALES"

PATENT APPLICATION FILING FEE CALCULATION

	<u>No. Filed</u>	<u>Less</u>	<u>Rate/Claim</u>	<u>Fee</u>
Total				
Claims	<u>29</u>	-20	9 x \$18.00	\$ 162.00
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Claims	<u>5</u>	-3	2 x \$78.00	\$ 156.00
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(Independent Inventor, Non-profit				
Corporation, or Small Business				
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- ☒ Specification: 38 Total Pages (including claims and abstract)
- ☒ Drawing(s): 7 Total Sheets (FIGs. 1-9)

Also enclosed herewith for filing in connection with the enclosed application are:

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- ☐ Information Disclosure Statement, modified PTO-1449, and (0) cited reference(s);
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- ☐ Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b);
- ☐ Microfiche Computer Program (Appendix);
- ☐ English translation document;

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☐ Submission of Priority Document and a certified copy of a _____ patent application or inventor's certificate, filed _____ and assigned serial no. _____, upon which a claim to priority is made; and

☐ Other: _____

Respectfully submitted,

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**METHODS AND APPARATUS FOR PROVIDING
TELEPHONE SUPPORT FOR INTERNET SALES**

FIELD OF THE INVENTION

5 The present invention is directed to
communications systems and, more particularly, to methods
and apparatus for providing telephone services in
response to signals received over the Internet.

BACKGROUND OF THE INVENTION

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Electronic commerce is growing at an
astonishing rate and is likely to capture an ever growing
segment of retail and business sales from conventional
stores.

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One particularly attractive feature of Internet
commerce is the relatively low entry costs, in terms of
physical overhead, associated with starting an E-commerce
business. An E-commerce business can be started with
20 little more than a Web server for hosting the business's
Web site, and the staff and accessories needed to ship
and bill for products ordered over the Internet. Rent
and other business overhead can be minimized by locating
the E-commerce business at a relatively remote location
25 where building rents are low while high speed Internet
access and shipping services are still accessible.

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The inability to orally present questions to a sales representative during an E-business transaction is another area which many potential E-business customers
5 find unsatisfactory. In many cases, sales are lost because a customer does not want to present their questions in E-mail form.

Another complaint with E-commerce is that many
10 businesses which sell over the Internet have poor customer support. In many cases, people complain about being unable to contact service representative to discuss the status of an order or other order related problems.

15 Large electronic retailers can make significant investments in telephone equipment such as PBXs which can be used in placing calls to customers and servicing calls received from customers. However, many smaller E-commerce start-up are unwilling or unable to make such
20 investments in telephone equipment.

The cost associated with PBX and other telephone equipment is one reason Internet businesses have poor telephone support. Another reason is the cost
25 associated with having people available to respond to questions which may be raised 24 hours a day, 7 days a week.

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SUMMARY OF THE INVENTION

The present invention is directed to methods and apparatus which can be used to provide manned, e.g., live telephone based, customer support to customers, e.g., people using the Internet to purchase goods and/or services.

In accordance with the present invention, a person viewing a Web Site, e.g., a customer, is presented with a button which provides the opportunity to talk to a customer service representative. Upon activating the button, e.g., by clicking on it, the customer's computer or other Internet browser device sends a signal, e.g., a call request message, over the Internet indicating that the customer wants to talk with a service representative. The call request message normally includes the customer's telephone number. Optionally, it may also include information on the Web page being viewed by the customer at, and/or shortly prior to, the time the button was activated. The customer's telephone number may be retrieved from a storage location on the customer's browser device or supplied by the customer following activation of the button.

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In one embodiment, the call request message is transmitted to an Internet server of the business which displayed the Web page with the activated call request button.

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The business's Internet server receives the call request message and identifies an available customer service representative who can service the call request.

5 Once a customer service representative is assigned to handle a call request, relevant information is transmitted to a computer used by the identified customer representative via, e.g., the Internet or a local area network (LAN). In addition, a customer service call is
10 initiated between the customer and the identified customer service representative using, e.g., the customer telephone number information included in the call request message or a customer telephone number retrieved from a database.

15

The customer service call may be initiated by sending, in the form of a customer service call initiation message, a telephone switch, conference bridge, intelligent peripheral device, AIN circuitry such
20 as an ISCP (integrated service control point) or other telephone equipment with call initiation capability, the telephone number of the customer to be called and the telephone number of the service representative. The customer service call information may be transmitted via
25 the Internet or a LAN to the device which is responsible for establishing the customer service call. In addition to the telephone number information, the customer service call initiating message may include, e.g., a business identifier and/or password. The business identifier is

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used for billing purposes while the password is used to ensure that the identified business is the party requesting the customer service call. All or portions of the customer service call initiating message may be
5 encrypted.

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10 In order to use customer representatives' time in an efficient manner, the calling equipment may be programmed to call the customer first. Once the customer answers the phone, an automated message is played to the customer requesting that the customer hold while being connected to a customer service representative. An exemplary message played to the customer may be, e.g.,
15 "Please hold while we connect you to a ABC company customer representative.", where ABC is the name of the company identified in the customer service call initiating message or call request message. While the customer is being played the message, the calling equipment calls the customer service representative and
20 bridges the calls between the sales representative and the customer. In such an embodiment, the customer service representative's time is not wasted waiting for the customer to answer the phone or on calls which go unanswered by the customer.

25

The above discussed technique of establishing a customer service call between a customer viewing a Web site and a customer service representative has several

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advantages. From a customer's perspective, it allows a customer to talk with a customer representative without having to place a call often while still viewing the Web page which was responsible for prompting the desire to

5 talk to a customer representative in the first place. From an E-business perspective, it allows for such calls to be placed without having to make an investment in telephone calling equipment such as a PBX, call bridging equipment, conference calling equipment or other

10 expensive telephone equipment. This is because, in accordance with the present invention, such equipment may be owned and located at a telephone company site as opposed to the E-business owner's site. The above described method also allows for efficient use of

15 customer representatives' time and allows customer representatives to work from home if desired. Since customer representatives can work from home, they may be more willing to work part time, split shifts, or work at unusual hours such as nights, weekends or late evenings

20 since they can do so from the comfort and convenience of their own homes.

While the methods of the present invention have been discussed above in the case of an embodiment where

25 the call request message is first transmitted to a company's Internet server, the call request message may be transmitted directly from the customer's computer to telephone equipment having call initiation and, optionally, call bridging capabilities, e.g., via the

Internet. In such an embodiment, the telephone number of the agent to be contacted, or, e.g., an 800 number corresponding to a customer service center, may be incorporated into the customer's call request message in addition to the customer's telephone number. This telephone number may be obtained from information included in the Web page which included the button which was responsible for initiating the generation of the call request message. Alternatively, the calling equipment may be responsible for identifying the telephone number of an available customer service representative using a business identifier included in the call request message and any one of a number of known automated call distribution techniques.

After identifying the telephone number of the service agent to be used in a customer service call, in response to the call request message, the calling equipment establishes a call between the customer and customer service representative, e.g., in the manner discussed above.

In the above manner, the methods and apparatus of the present invention can be used to facilitate E-business transactions, reduce or eliminate the need for E-businesses to make substantial investments in telephone equipment and, at the same time, provide a customer service representative greater opportunities to work from home.

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The methods of the present invention can be used to provide customer support using voice over IP as opposed to voice over the telephone. In such an embodiment, IP calling equipment is substituted for the described telephone calling equipment. In addition, Internet, e.g., IP, addresses are substituted for telephone numbers.

10 Various additional features and advantages of the present invention will be apparent from the detailed description which follows.

BRIEF DESCRIPTION OF THE DRAWINGS

15 Fig. 1 illustrates a communication system implemented in accordance with an exemplary embodiment of the present invention.

20 Fig. 2 illustrates a computer system suitable for use by an E-business customer in the system of Fig. 1.

25 Fig. 3 illustrates a computer system that may be used as the business Web server of Fig. 1.

Fig. 4 illustrates an exemplary Web page displayed on a display device in accordance with the present invention.

Fig. 5 is a flow chart illustrating various steps performed by a consumer's computer system in accordance with the present invention.

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Fig. 6 is a flow chart illustrating various steps performed by a consumer's Web server in accordance with the present invention.

10

Fig. 7 illustrates a first exemplary call request message.

Fig. 8 illustrates an exemplary customer service call initiation message.

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Fig. 9 illustrates a second exemplary call request message.

DETAILED DESCRIPTION

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As discussed above, the present invention is directed to methods and apparatus which can be used to provide live, e.g., telephone based, customer support to customers, e.g., people using the Internet to purchase goods and services.

25

Fig. 1 illustrates a communications system implemented in accordance with the present invention. As illustrated, the system 100 includes first through fourth

customer premises 22, 24, 26, 28, a telephone network 71,
business site 50, a separate computerized sales site 59
and the Internet 30. The Internet connects the various
components together so that messages, data and
5 information can be transmitted between the system
components using, e.g., TCP/IP.

The first customer premise includes a computer
system 36 and a telephone 38. The computer system 36 is
10 coupled to the Internet 30. While not discussed in
detail herein, the telephone network 71 may be used to
connect customer premises to the Internet 30. The
telephone 38 is coupled to a telephone switch, e.g., a
signal switching point 62, of the telephone network 71.

15 The computer system 36 may be used by an
individual, e.g., a customer, located at the first
customer premises 22, to browse the World Wide Web, e.g.,
for purposes of shopping on-line. The telephone 38 may
20 be used by the customer to make and receive calls.
Assuming that the customer has DSL, ISDN or multiple
telephone lines or another connection to the Internet
which does not prohibit voice calls over the phone 38
while the computer system 36 is "on-line", e.g., in
25 active contact with the Internet, the customer may be
contacted by a customer service representative via
telephone 38 while still on-line using the computer 36.

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Each of the second, third and fourth subscriber premises 24, 26, 28 may include a computer 36 and telephone 38. In such an embodiment, each subscriber premises would be connected to the Internet 30 as well as
5 the telephone network 71.

While on-line, the customer may access, view and respond to Web pages presented to the customer from business site 50. Business site 50 includes a Web server
10 52 and a plurality of sales positions, e.g., sales positions 1 (54) through N (55). Each sales position 54, 55 includes a telephone 56, 56' and a computer 58, 58'. The telephone 56, 56' is coupled to the telephone network 71 while the computer 58, 58' is coupled to the Web
15 business server 52. A customer representative, e.g., a live human sales representative, can talk with customers via the telephone 56, 56' while accessing Web page information, customer information, and/or entering sales order information using the computer 58 or 58'.

20

The Web Business server 52 performs a variety of functions including Web Page hosting, maintaining of sales information and records, assignment of customer representatives to service particular customers and the
25 generation of customer service call initiation messages. In one embodiment, the server 52 maintains information on customer service representative availability and assigns customer call requests to particular customer service

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representatives and sales positions, as a function of sales representative's availability and/or expertise.

Note that in the Fig. 1 embodiment, the business site 50 does not include a PBX or other telephone equipment. Since the telephone network and telephone conferencing equipment included therein is used to support customer service calls, the need for a PBX is avoided. However, in some embodiments, it is contemplated that a PBX would be included at the business site, with the telephone network providing call initiation and bridging capability, e.g., for remote customer service representatives such as the one located at remote sales site 59.

The remote sales site 59, like sales positions 1 through N, includes a telephone 56'' and computer 58''. Sales site 59 may be, e.g., the home of a customer service representative. The computer is coupled to the Web business server via the Internet 30 while the telephone 56'' is coupled to the telephone network 71. Sales information, customer service representative availability information, customer information as well as other business information can be exchanged between the Web business server 52 and the computer 58'' via the Internet. Communications between the computer 58'' and business Web server 52 may be encrypted for security purposes. Customer service calls including calls initiated in response to a call request message sent to

the Web server 52 can be handled from phone 56''.

Because computer and telephone customer service support can be implemented from any site equipped with a computer and a telephone, the calling techniques of the present
5 invention allow human customer service representatives to work from home if desired.

The telephone network 71 includes operational
switching network (OSN) 74, a plurality of signal
10 switching points 62, 64, 66, a mobile telephone switching office 65, an antenna 67, a plurality of signal transfer points (STPs), and an Internet access server 72. The OSN couples together the Internet access server 72, and SSPs 62, 64, 66. The OSN 74 is a TCP/IP based network which
15 allows telephone switches, the Internet Access server, telephone operator stations, and other telephone network devices to exchange data as well as control and switching information. Accordingly, OSN 74 can be used to transmit control signals used for establishing customer service
20 calls to various components of the telephone network 71.

The SSPs 62, 64, 66 may be implemented using telephone switches with call bridging/conferencing capability, e.g., Class V telephone switches. The signal
25 transfer points 68, 70 link the SSPs and MTSO 68 together via signaling and data lines over which information can be communicated between the SSPs in accordance with signaling system seven (SS7).

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In addition to being coupled to the OSN 74 and STPs, the SSP 62, 64, 66 may also be coupled to the Internet and/or one or more peripheral devices 76. Such devices are sometimes referred to as intelligent peripherals (IPs) because they perform logic functions in addition to providing conference bridges, speech recognition circuits and other telephone switch peripheral devices. The illustrated IP includes an input/output interface 73 for coupling the IP 76 to the Internet and to the SSP 62. It also includes calling logic 80 used for establishing customer service calls in response to customer service call request messages and/or customer service call initiation messages received via the Internet 30.

15
The telephone networks Internet access server 72 interfaces between the Internet 30 and the OSN 74. The Internet Access server 72 provides security, e.g., it serves as a firewall, to insure that unauthorized users are not granted access to the OSN 74 and thereby permitted to control telephone switch operation. Customer service call request messages may be sent via the Internet to the Internet Access server 72. If the businesses sending the customer service call request message is recognized as a customer service call service subscriber, and the sender's PIN or password is confirmed, the Internet Access Server will proceed to establish the requested customer service call by passing the necessary customer service call setup instructions

and data to one of the telephone switches, e.g., SSPs 62, 64, 66, via the OSN 74.

Thus, a customer service call may be initiated
5 by sending a message over the Internet to the IP 76 or to
the Internet access server. Alternatively, a call
conference may be initiated by sending a call request
message or a customer service call initiation message
directly to a telephone network switch, e.g., SSP 62,
10 which has an Internet interface. In the case where
telephone switches are allowed to receive messages and
data directly from the Internet, firewall protection is
incorporated into the switch's Internet interface to
reduce the possibility of unauthorized use and/or control
15 of the telephone switch.

Fig. 2 illustrates an exemplary computer system
36 which may be used by a customer browsing the Internet.
The computer system 36 comprises a CPU 212, modem 214,
20 NIC 216, memory 218 and an input/output (I/O) interface
206 which are coupled together by a bus 201. The I/O
interface 206 couples a plurality of input/output
devices, including a display 202, speakers 204, keyboard
208 and MIC 210, to the bus 201.

25

The memory 218 includes applications as well as
data that may be executed and/or processed by the CPU
212. In particular, memory 218 includes a web browser
220, an operating system 222, a voice over IP routine

232, and user information 224. The user information 224 includes a phone number 226 and an IP address 228, e.g., the phone number and IP address of the customer using the computer system 36. The computer system 36 may be
5 coupled to the Internet via the modem 214. Alternatively it may be connected to the Internet through a computer network to which the computer system is coupled via network interface card (NIC) 216.

10 The user of the computer system 36 may supply his or her phone number to the computer system 36 for future use when being contacted, e.g., by a customer service representative, at the time the operating system 222 is installed, when the web browser 220 is installed,
15 or at the time the customer activates a button on a web page requesting that a customer service representative contact them.

Fig. 3 illustrates a business Web server that
20 may be used as the Web server 52 illustrated in Fig. 1. As illustrated, the Web server includes many of the same components as the computer system illustrated in Fig. 2. The business Web server includes a bus 201 which couples a CPU 312, modem 314, NIC 316, memory 318 and an
25 input/output (I/O) interface 306 together. The I/O interface 306 couples a plurality of input/output devices, including a display 302, speakers 304, and keyboard 308 to the bus 201.

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The memory 318 includes applications as well as data that may be executed and/or processed by the CPU 312. In particular, memory 318 includes a web browser 320, an operating system 322, a voice over IP routine 332, order information 321, customer information 324, customer service representative information 331, web page server routine 330, and an automated call distribution routine 338.

10 A voice over IP routine can be used to communicate and receive voice signals, e.g., to support audio communications over the Internet with a customer. Order information 321 includes information on received orders, e.g., orders for products offered for sale on the business's web page. Customer information 324 includes customer name and address information and, in some embodiments, phone number 326 and IP address information 328. The phone number 326 and/or IP address information can be used to contact the customer, e.g., in response to a request to be called by a customer service representative. The stored phone number and IP address information may correspond to information previously obtained from the customer.

25 Customer service representative information 331 includes customer representative availability information 337, customer service representative phone number information 334, and IP addresses information 336. The customer representative availability information 337

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indicates when a customer service representative is available to handle customer service calls, e.g., is logged onto the representative computer system. This information can be supplemented with information received from the customer service representative's computer regarding the status of the representative at any given moment in time, e.g., information indicating whether or not the agent is busy servicing a customer. The customer service representative phone number information 334 and IP address information 336 identifies the phone number and IP address of the computer being used by each customer service representative. The customer representative phone number information can be used by the automated call distribution (ACD) routine 338 to formulate customer service call initiation messages in response to call request messages received from customers.

The automated call distribution routine 338 is responsible for processing received call request messages. When a call request message is received, the ACD routine 338 identifies an available customer service representative, or one that will be available in the near future, using, e.g., the customer service representative availability information 337. The ACD routine then formulates a customer service call initiation message using the telephone number of the customer to be called and the telephone number of the customer service representative assigned to handle the call. In addition

to assigning a customer service representative to handle the call, the ACD routine also forwards to the assigned customer service representative customer information and information about the Web page that was being viewed by the customer at the time the call request was initiated. This information may be transmitted to the assigned customer representative computer over the Internet or a LAN.

Fig. 4 illustrates an exemplary web page 400 of the present invention being displayed on the display 202 of computer system 36. The Web page 400 is displayed by the customer's Web browser 220 after being received over the Internet from the Web server 52. As illustrated, the page 400 includes a product description/advertisement area 402, an add to shopping cart button 404, and a talk to customer service representative button 406.

In response to the activation of the talk to customer service representative button 406, e.g., by double clicking on it, the Web browser generates a call request message.

The display of Web page 400 occurs as part of the normal operation of a customer's computer, e.g., while the customer is browsing the Internet. Fig. 5 is a flow chart 500 illustrating the steps performed by a customer's computer in accordance with the present invention.

Computer operation starts in step 502 with the computer being turned on. Operation proceeds to step 504 wherein the computer 36 executes the Web browser application 220. In step 506 the computer 36 receives web page selection information, e.g., a web site URL, from the customer. This information may be entered, e.g., using keyboard 208.

10 Next, in step 508, the web page corresponding to the site selected by the customer is retrieved and displayed. In this manner, the Web page 400, including the "talk to service representative" button may be displayed to a customer.

15 In step 510, activation of the "talk to customer service representative" button 406, e.g., by the customer clicking on the button, is detected. Next in step 512, the computer system requests that the customer
20 provide the telephone number at which he/she wishes to be called. In step 512, the request for the telephone number is skipped if a telephone number has already been stored on the customer's computer. From step 512 operation proceeds to step 513. In step 513 a call
25 request message is generated.

The call request message is generated from information obtained from the Web page as well as information provided by the customer. For example, the

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call request message may include a Web server address or the address of telephone conference equipment which was obtained from the Web page 400 and, optionally, a business identifier, obtained from the Web page 400. In addition it may include a customer telephone number and/or customer identifier. In the case where voice over IP is supported IP addresses may be provided in the place of telephone numbers. Call request messages may also include Web page information, information on the time the customer wishes to be contacted and additional information such as a brief note from the customer indicating the purpose or planned subject of the call.

In accordance with the present invention, the Web page will normally include information identifying the contact address, e.g., the address of a Web server or conference equipment, to be used when sending a call request message. The contents of the call request message may vary depending on whether the message is being sent to a Web server or telephone conference equipment.

Fig. 7 illustrates an exemplary call request message 700 which is generated when the Web page 400 includes a Web server address as the contact address for call request messages. The exemplary call request message 700 includes a Web server address 702, customer telephone number 704, web page information 706, desired contact time information 708 and additional information,

e.g., a brief message from the customer. Customer identification information may also be included in the message 700. In cases where customer identification information is provided and the Web server has a contact
5 telephone number stored for the customer, the customer telephone number may be omitted from the message.

Fig. 9 illustrates an exemplary call request message 900 which is generated when the Web page
10 400 includes a telephone conference equipment address as the contact address for call request messages. As illustrated, the exemplary call request message 900 includes the telephone conference equipment address 902, a business identifier 904 which is normally obtained from
15 the Web page 400, web page information 906, a customer telephone number 908, customer service representative information 910, and desired contact time 912.

The customer service representative information
20 910 is an optional service representative identifier which may be obtained from the Web page 400 being viewed at the time the customer activates the call request button. A business can assign different customer service representatives by incorporating different customer
25 service representative information into its different web pages. For example a travel agency may use the customer service representative information to assign a cruise expert to handle calls originating from Web pages

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advertising cruises and an airline expert to Web pages advertising flights.

Referring once again to Fig. 5, once the call
5 request message has been generated in step 513, operation proceeds to step 514. In step 514, the generated call request message is transmitted via the Internet to the Web server or conference equipment, e.g., telephone or voice over IP conference equipment, to which it is
10 addressed.

From step 514 operation proceeds to step 516 wherein additional customer input is processed by the computer, e.g., additional web pages are accessed in
15 response to input from the user. Operation stops in step 518, e.g., when the customer turns off the computer.

The method of the present invention as applied to a business Web server 52 will now be described with
20 reference to Fig. 6. As illustrated in Fig. 6, operation of the Web server 52 begins in step 602 with the system being activated. In step 604 the Web server 52 provides an Internet user, e.g., customer, accessing a web site hosted by the Web server, a web page. In step 606, the
25 Web server 52 detects a call request message from a customer. The received call request message is processed in step 608 with the Web server 52 identifying a customer service representative to service the call request. This may be done using the ACD routine 338. Once a customer

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service representative has been identified, e.g., assigned, to service the call request, a customer service call initiation message is generated in step 609. The customer service call initiation message includes
5 information used by telephone conference equipment, to which the message is directed, to initiate and bill the customer service call.

Fig. 8 illustrates an exemplary customer
10 service call initiation message 800. As illustrated, the message 800 includes a telephone conference equipment address 802, a business identifier 804, a password 806, customer telephone number 810, customer service representative telephone number 812 and desired contact
15 time information 814. In the case of voice over IP, the customer telephone number 810 and customer service representative telephone number 812 are replaced with Internet, e.g., IP addresses, for the customer and customer service representative, respectively.

20

The business identifier 804 identifies the business requesting that the call be initiated. Normally the identified business will be billed for the cost of the customer service call. Password 806 is used to
25 confirm that it is actually the identified business requesting the call and not a computer hacker. The customer telephone number 810 and customer service representative telephone number 812 are the telephone numbers to be used when establishing the customer service

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call. Desired contact time 814 indicates the desired time of the customer service call. If this field is left blank or omitted, customer service calls are initiated by the calling equipment as soon as possible.

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Referring once again to Fig. 6, once the customer service call message is generated, it is transmitted in step 610, e.g., over the Internet, to calling equipment which is responsible for initiating the customer service call between the customer and customer service representative.

In step 612, the Web server 52 supplies customer information, including information on the Web page or pages which were being viewed by the customer, to the customer service representative who was selected to handle the call. The information may be transmitted to the customer service representative's computer via the Internet or a local area network. Then in step 614, the Web server receives information from the customer service representative relating to the customer service call. The information may be, e.g., purchase order information, a complaint or some other information. The information is transmitted from the customer service representative computer to the Web server 52 via the Internet or the local area network.

In step 616, the information received from the customer service representative is processed by the

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server 52 prior to Web server operation being stopped in step 618.

As discussed above, rather than transmit
5 customer service call request messages to a Web server,
they can, and in some embodiments are, transmitted
directly to calling equipment. Call request messages of
the type illustrated in Fig. 9 include sufficient
information for calling equipment to initiate and bill
10 for a customer service call in accordance with the
present invention.

By having the business Web server receive call
request messages instead of the calling equipment, the
15 business using the calling service can have greater
control of the assignment of calls to particular service
representatives as well as control over which calling
equipment, when several calling devices are available,
will be used to handle individual calls.

20 While the term customer has been used herein to
refer to an individual browsing the Internet and seeking
to contact a business, it is to be understood that this
term is to be interpreted broadly and is not limited to
25 individuals who actually place orders with the business
which is contacted. In addition, the term calling
equipment is to be interpreted broadly as including IPs,
telephone switches, conference bridges, and other devices
capable of establishing customer service calls or

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5 Numerous variations on the above described
methods and apparatus are possible without departing from
the scope of the invention.

WHAT IS CLAIMED IS:

1 1. A method of providing customer service to a user of
2 the Internet, the method comprising the steps of:
3 receiving a message over the Internet
4 representing a request for a call from a customer service
5 representative; and
6 operating, in response to said received
7 message, calling equipment to establish a call between
8 said user and a customer service representative.

1 2. The method of claim 1, further comprising the step
2 of:
3 assigning a customer service representative to
4 respond to said received message; and
5 transmitting a first telephone number
6 associated with said user and a second telephone number
7 associated with the assigned customer service
8 representative to said calling equipment.

1 3. The method of claim 2, wherein the message from said
2 user includes a telephone number which can be used to
3 call the user.

1 4. The method of claim 3, wherein the message from said
2 user further includes desired contact time information.

1 5. The method of claim 4, wherein the message from said
2 user further includes web page information.

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1 6. The method of claim 3, wherein the message from said
2 user further includes a business identifier.

1 7. The method of claim 6, wherein the message from said
2 user further includes customer service representative
3 information.

1 8. The method of claim 1, wherein said conference
2 equipment includes an intelligent peripheral device, and
3 wherein said step of operating calling
4 equipment includes:

5 operating the intelligent peripheral
6 device to initiate a first call to said user
7 using the first telephone number;

8 operating the intelligent peripheral
9 device to initiate a second call to said
10 customer service representative using the
11 second telephone number; and

12 operating the intelligent peripheral
13 device to bridge the first and second calls.

1 9. The method of claim 1,
2 wherein said calling equipment is a telephone
3 switch, and

4 wherein said step of operating calling
5 equipment includes:

6 operating the telephone switch to initiate a
7 first call to said user using the first telephone number;

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operating the telephone switch to initiate a second call to said customer service representative using the second telephone number; and

operating the telephone switch to bridge the first and second calls.

10. The method of claim 1, further comprising the steps of:

assigning, in response to the received message, one of a plurality of customer service representatives to service said user; and

sending information associated with said user to a computer system associated with the assigned customer service representative.

11. The method of claim 10, wherein sending information associated with said user includes:

transmitting said information over the Internet to the computer system associated with the assigned customer service representative.

12. The method of claim 10, wherein sending information associated with said user includes:

transmitting said information over a local area network to the computer system associated with the assigned customer service representative.

13. The method of claim 10, further comprising the step of:

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3 receiving sales information from the customer
4 service representative.

1 14. The method of claim 13, wherein the computer
2 associated with the customer service representative is
3 located at the customer service representative's
4 residence.

1 15. The method of claim 13, further comprising the step
2 of:

3 supplying, over the Internet, to a computer
4 system associated with said user a web page including a
5 button which can be activated to initiate the
6 transmission of a call request message over the Internet.

1 16. A method of using a computer coupled to the
2 Internet, the method comprising:

3 operating the computer to retrieve from the
4 Internet a web page including a button which can be
5 activated by a user of the computer to request a call
6 from a customer service representative;

7 operating the computer to display said web page
8 to said user;

9 operating the computer to detect activation of
10 said button by the user; and

11 in response to activation of said button,

12 i. generating a call request message; and

13 ii. transmitting the call request message
14 over the Internet.

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1 17. The method of claim 16,
2 wherein the step of transmitting the call
3 request message is performed as a function of an address
4 information obtained from said web page; and
5 wherein generating a call request message
6 includes incorporating into the call request message, a
7 telephone number associated with said user.

1 18. The method of claim 17, wherein generating a call
2 request message further includes:
3 incorporating into the call request message,
4 web page information obtained from the web page and
5 desired contact time information.

1 19. The method of claim 18, wherein generating a call
2 request message further includes:
3 incorporating into the call request message
4 customer service representative information.

1 20. The method of claim 19, wherein the customer service
2 representative information includes a customer service
3 telephone number.

1 21. A method of operating telephone equipment, the
2 method comprising the steps of:
3 receiving a message transmitted using TCP/IP
4 including call set-up information, the set-up information
5 including a telephone number of a customer and a
6 telephone number of a customer service representative,

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7 operating the telephone equipment to establish
8 a first call with the customer;
9 operating the telephone equipment to establish
10 a second call with the customer service representative;
11 and
12 bridging the first and second calls.

1 22. The method of claim 21, wherein the first call is
2 established prior to the second call, the method further
3 comprising the step of:

4 playing the customer a message while
5 establishing the second call.

1 23. A method of providing customer service to a user of
2 the Internet, the method comprising the steps of:

3 receiving a message over the Internet
4 requesting a call from a customer service representative;
5 and

6 establishing over the Internet, in response to
7 said received message, a call between said user and a
8 customer service representative, said established call
9 including a voice over IP connection with at least one of
10 said user and said customer service representative.

1 24. The method of claim 23, further comprising the step
2 of:

3 assigning a customer service representative to
4 respond to said received message; and

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5 transmitting a first IP address associated with
6 said user and a IP address associated with the assigned
7 customer service representative to said calling
8 equipment.

1 25. A communication system, comprising:

2 a Web server for receiving a message over the
3 Internet requesting a call from a customer service
4 representative; and

5 calling equipment coupled to said Web server
6 for establishing a call between said user and a customer
7 service representative, in response to said received
8 message.

1 26. The communication system of claim 25, wherein said
2 calling equipment includes:

3 an intelligent peripheral device; and
4 a telephone switch coupled to the intelligent
5 peripheral device.

1 27. The communication system of claim 25, wherein said
2 calling equipment includes:

3 a telephone switch with an interface for
4 receiving messages from the Internet.

1 28. The communication system of claim 25, wherein the
2 Web server is a computer for interfacing with the
3 Internet and wherein the calling equipment is a telephone
4 switch.

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- 1 29. The communication system of claim 25, wherein the
- 2 calling equipment is a voice over IP communications
- 3 system.

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ABSTRACT

Methods and apparatus for providing
manned, e.g., live customer support to customers, e.g.,
people using the Internet to purchase goods and/or
5 services are described. A person viewing a Web Site,
e.g., a customer, is presented with a button which
provides the opportunity to talk to a customer service
representative. Upon activating the button, e.g., by
clicking on it, the customer's computer or other Internet
10 browser device sends a signal, e.g., a call request
message, over the Internet indicating that the customer
wants to talk with a service representative. The call
request message includes the customer's telephone number
and/or IP address. In response to the call request
15 message, calling equipment is used to establish a
customer service call between the customer and a customer
service representative. The equipment can be owned by
the telephone company thereby avoiding the need for E-
business companies to make investments in telephone
20 equipment. In addition, a customer service
representative can be located either at the E-business
site or remotely, e.g., at the customer service
representative's private home or other site, with the
representative being called by the conference equipment
25 as required to service a customer. Voice over IP
conference equipment may be used instead or in
conjunction with telephone conference equipment where one
or both of the customer and service representative have
voice over IP capability.

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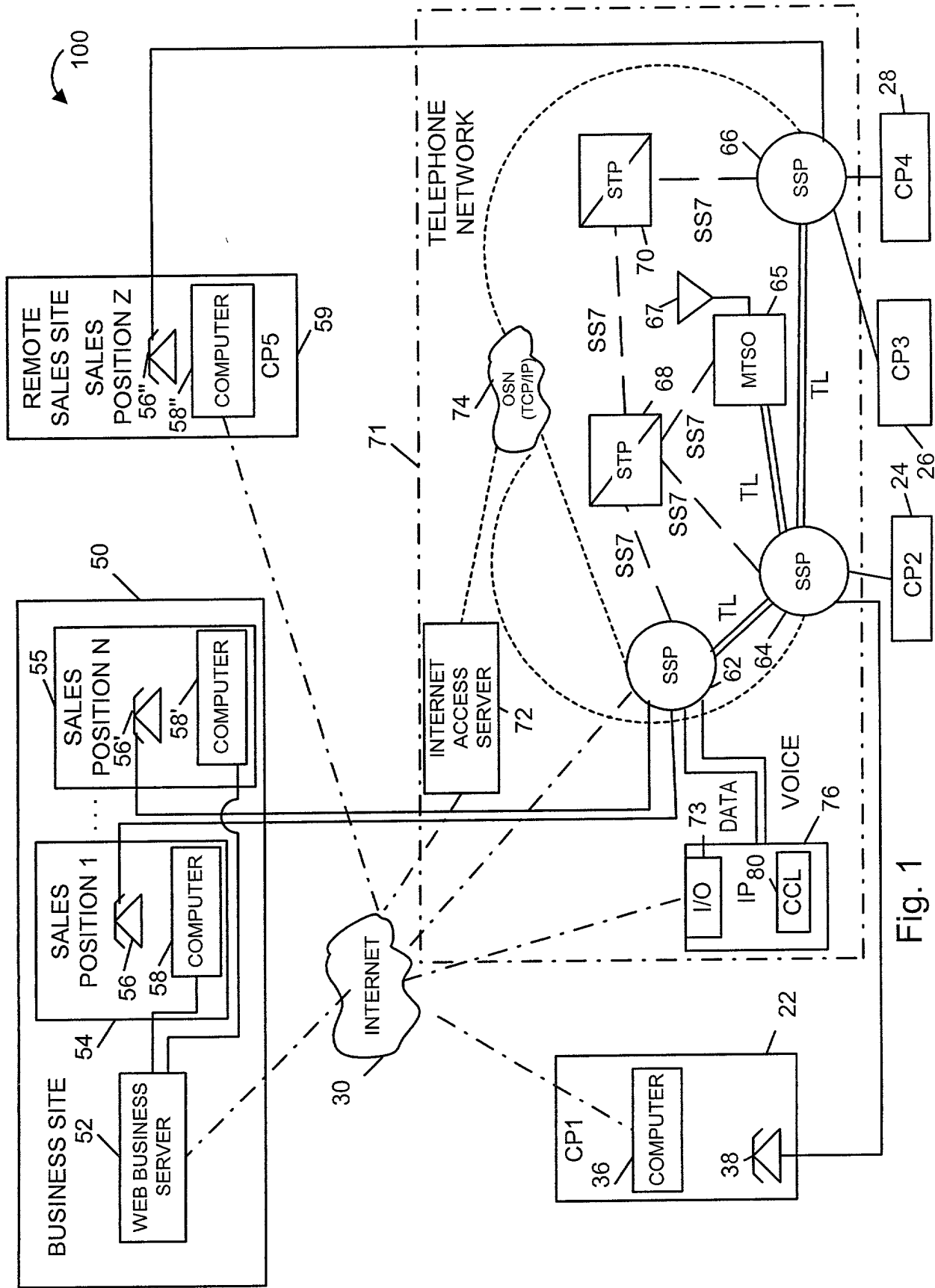
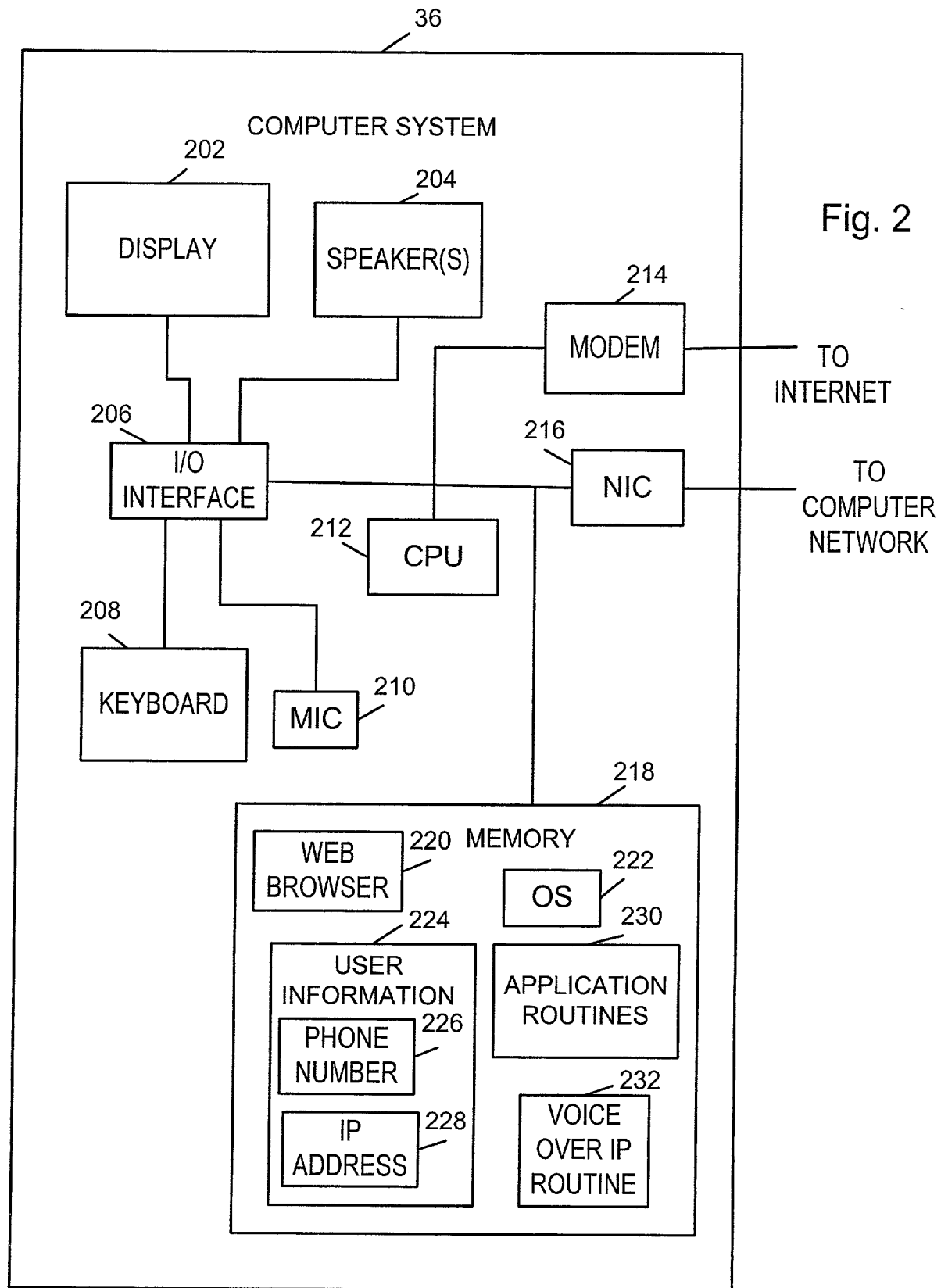


Fig. 1



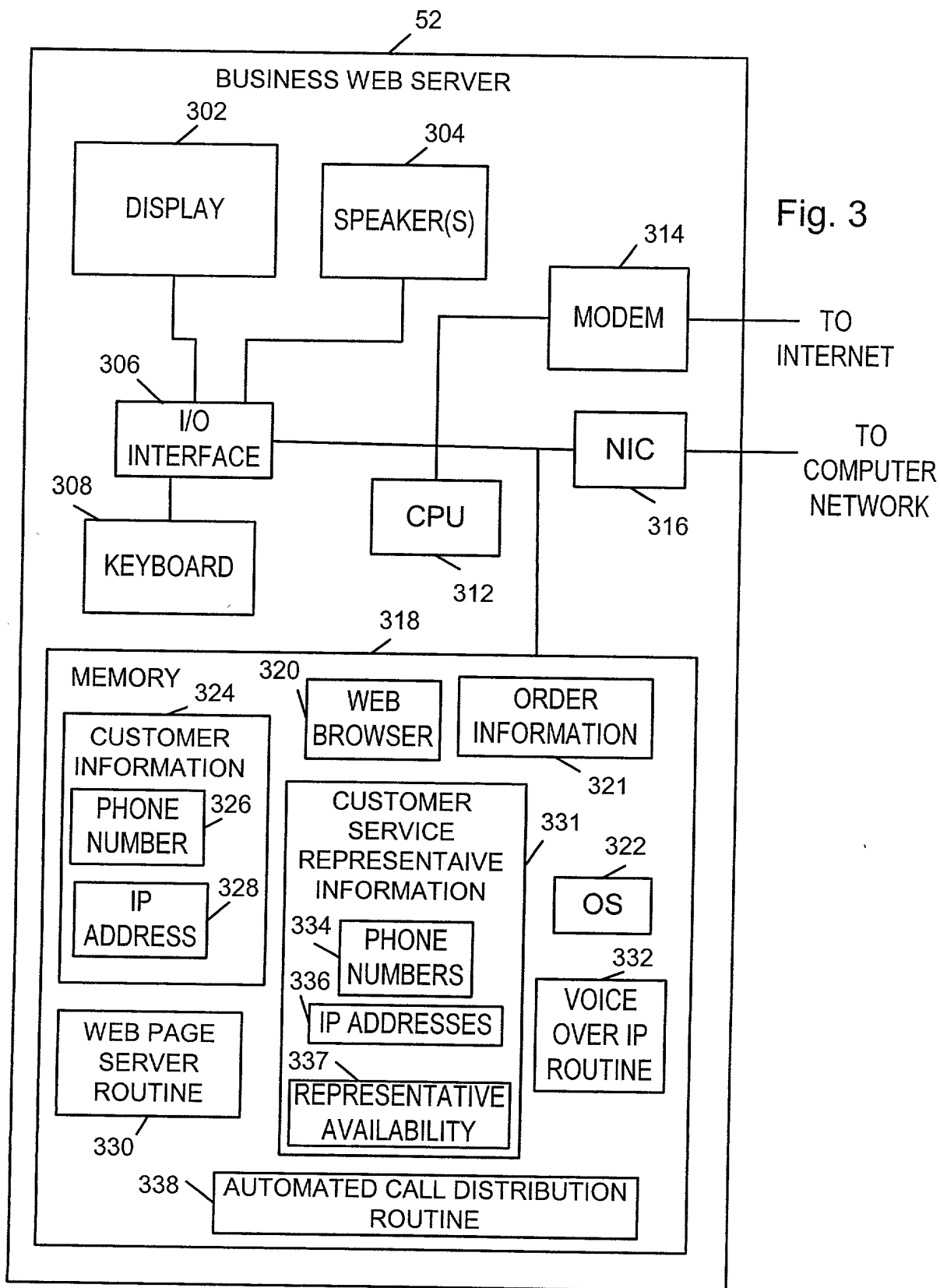


Fig. 3

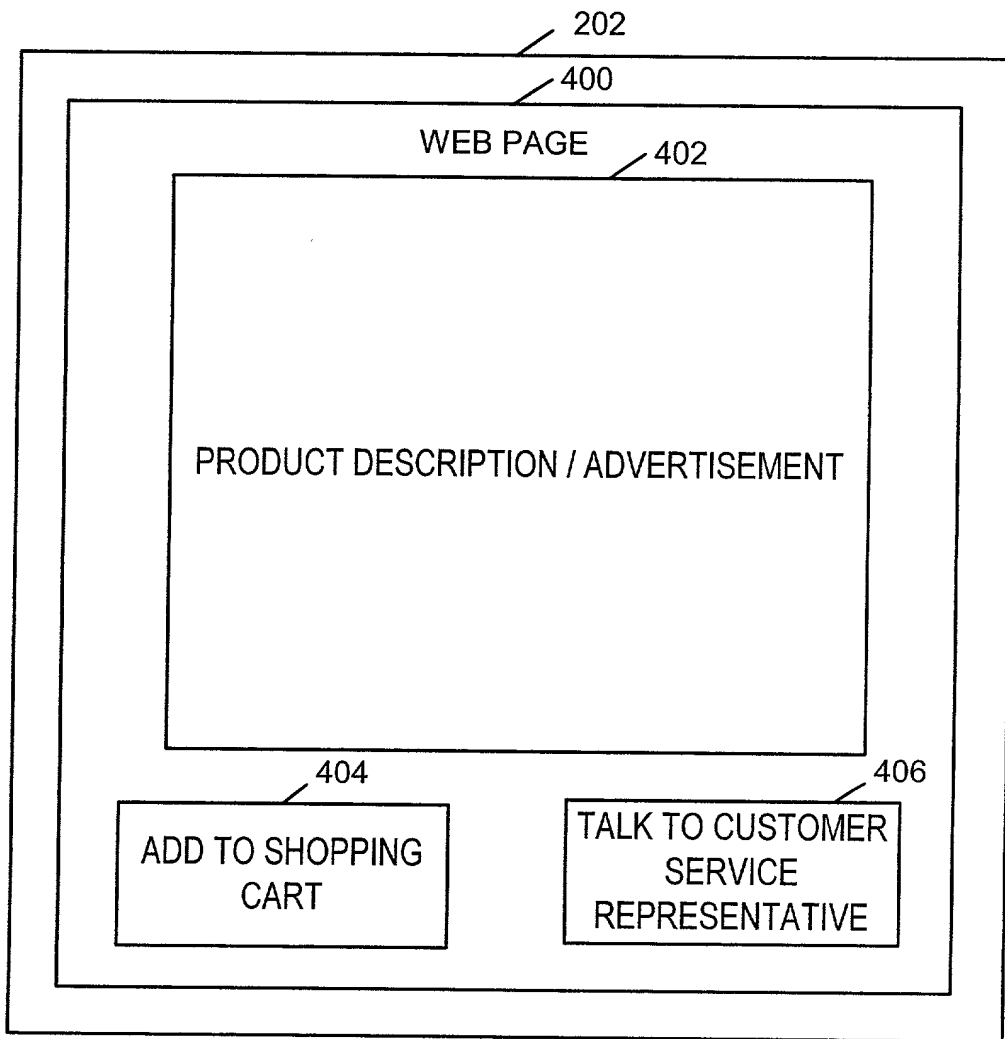
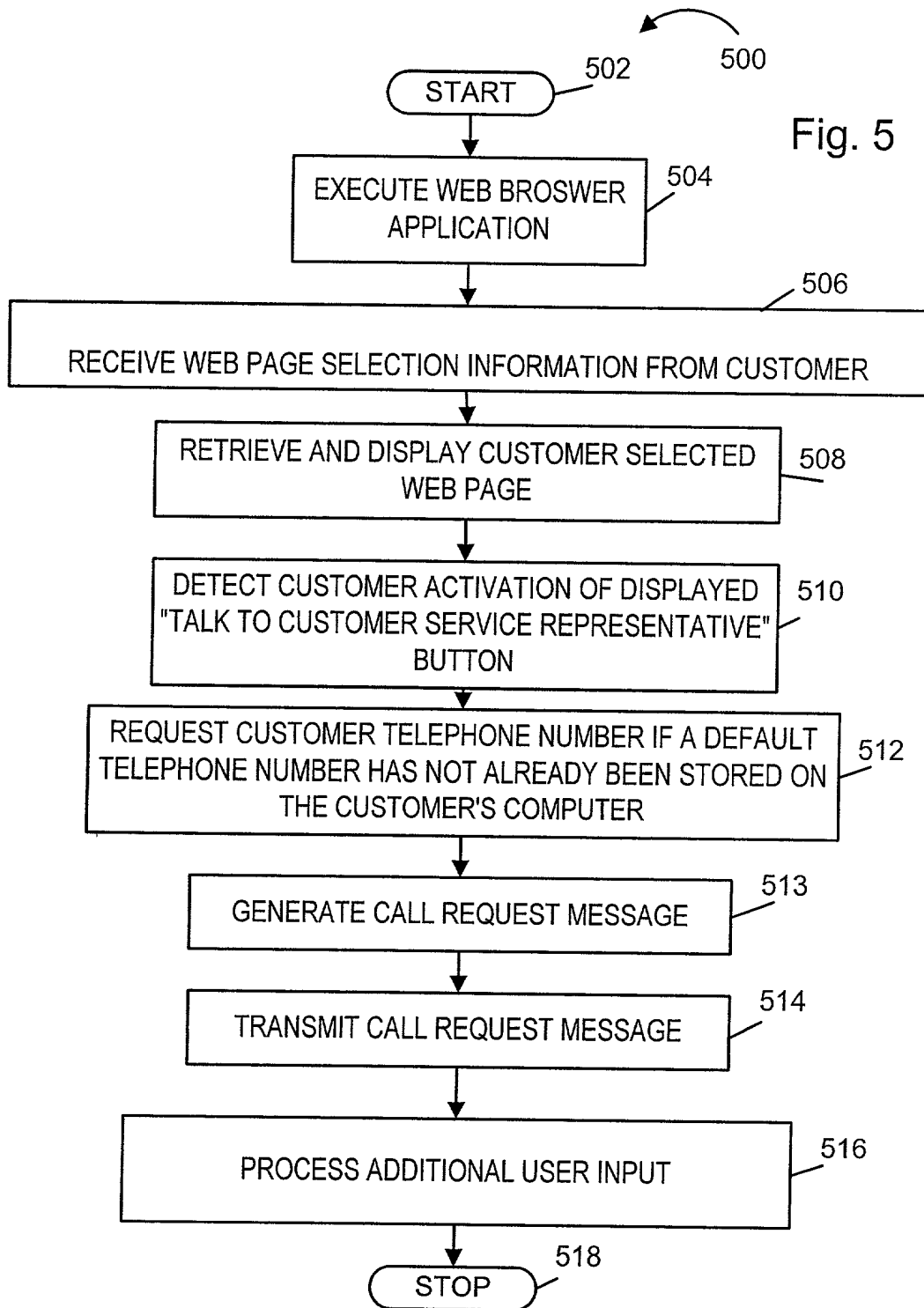
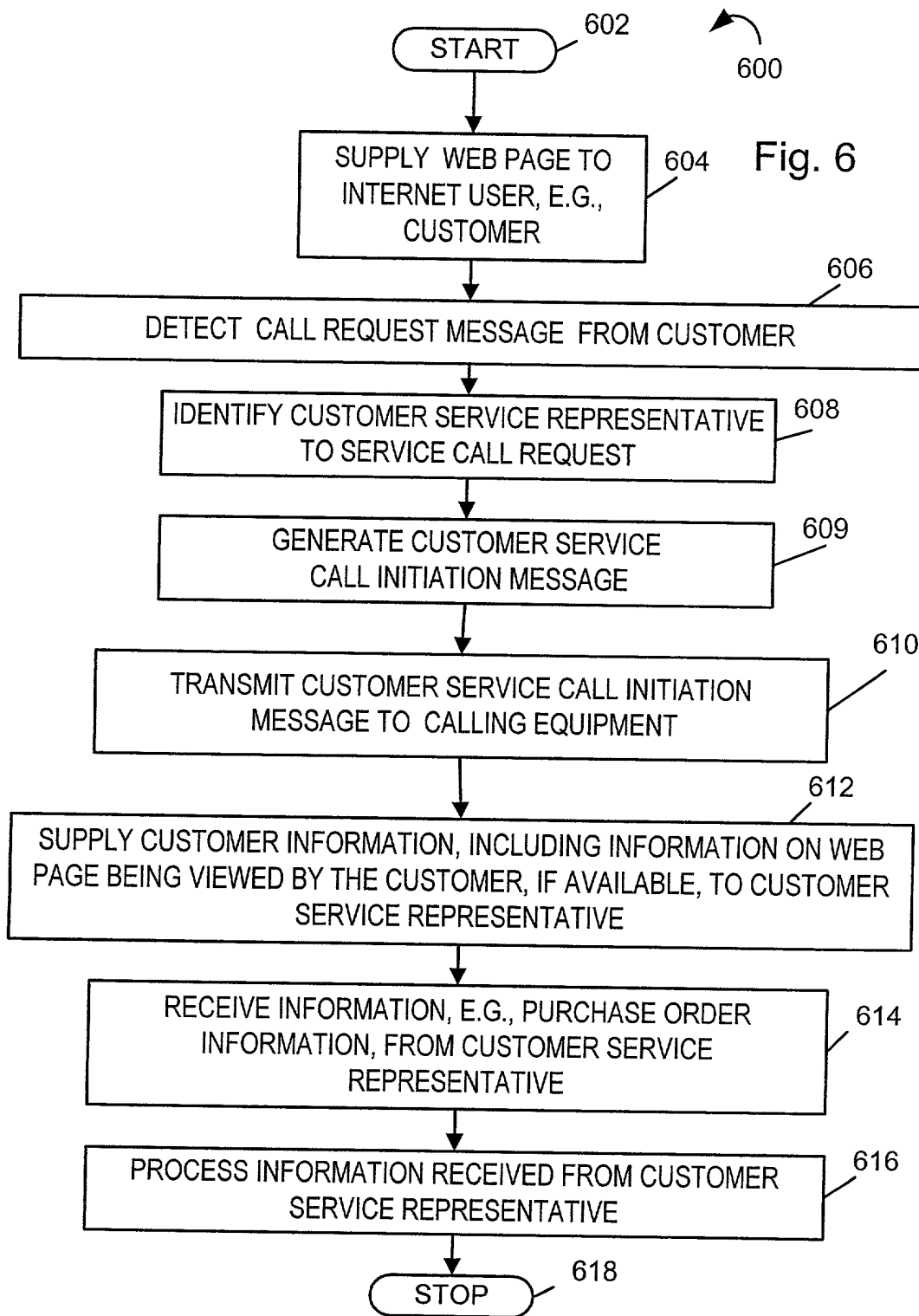


Fig. 4



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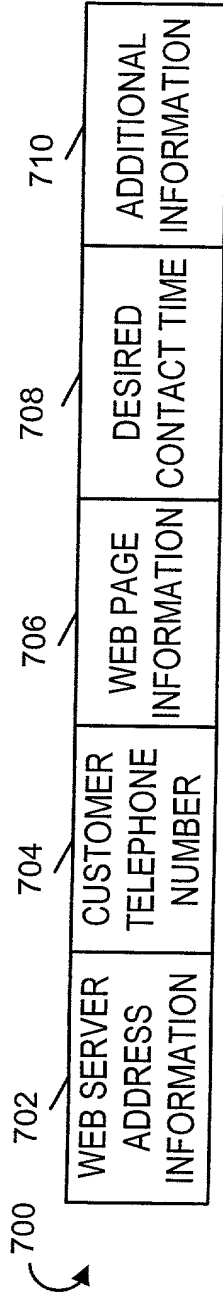


Fig. 7

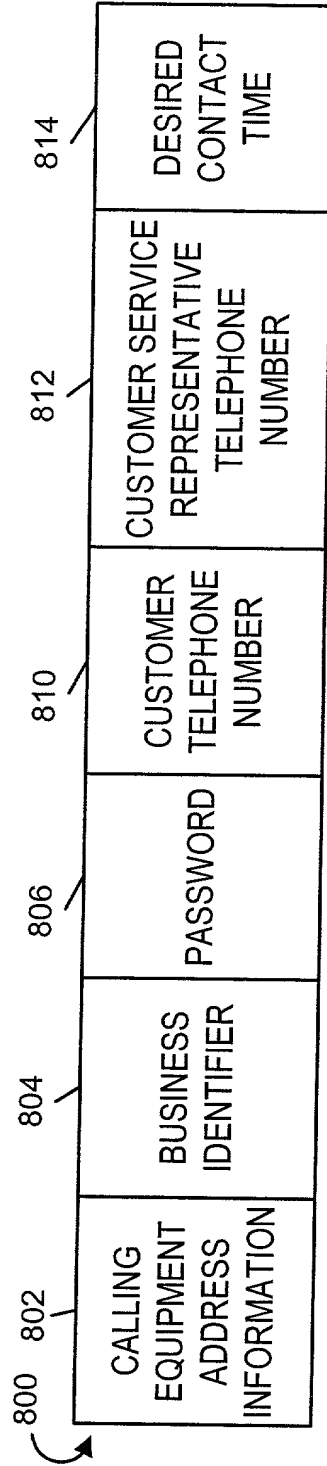


Fig. 8

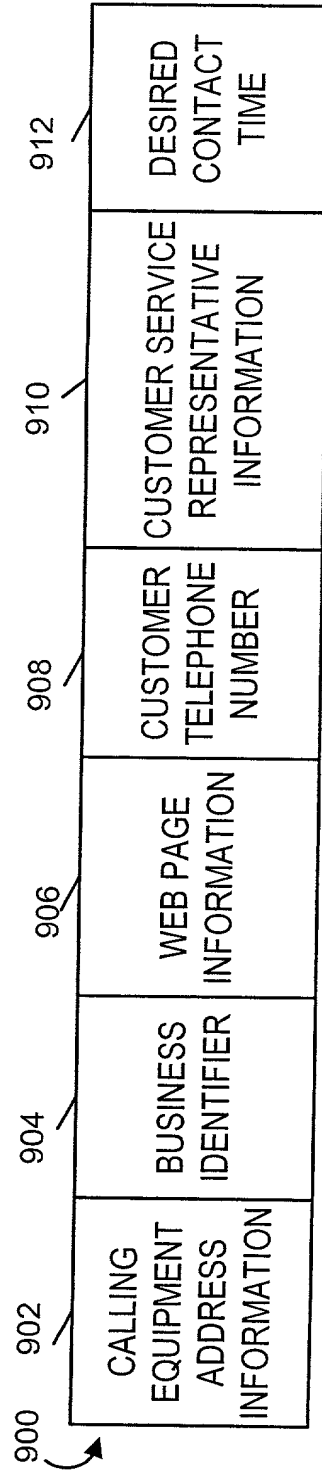


Fig. 9

**DECLARATION AND
POWER OF ATTORNEY**
(Utility Patent Application)

As a below named inventor, I hereby declare:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below), of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**METHODS AND APPARATUS FOR PROVIDING
TELEPHONE SUPPORT FOR INTERNET SALES**

the specification of which:

☒ is attached hereto

☐ was filed on _____ as Application Serial
No. _____ with amendment(s) filed

☐ was filed as PCT international application:
serial number _____ on _____
and was amended under PCT Article 19 on _____

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations section 1.56.

I hereby claim foreign priority benefits under Section 119 of Title 35, United States Code for the above-identified US patent application based on the patent or inventor's certificate identified below and having a filing date before that of the US patent application for which priority is claimed:

006T99-9979559

Application No. Country Filing Date Priority Claimed
under 35 U.S.C. §119

I hereby claim the benefit under Section 120 and/or Section 119(e) of Title 35 of the United States Code of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by Section 112 of Title 35 of the United States Code, I acknowledge the duty to disclose material information, as defined in Section 1.56 of Title 37 of the Code of Federal Regulations, which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Application Serial No. Filing Date Status
Patented Pending Abandoned

Power of attorney:

As a named inventor, I hereby appoint:

John C. Pokotylo (Reg. No. 36,242)
Michael P. Straub (Reg. No. 36,941)

as my attorneys to prosecute this application and to transact all business in the United States Patent and Trademark Office in connection therewith.

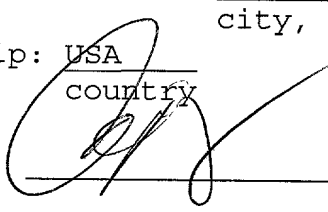
Direct all correspondence to Customer Number IDON601137 at the following address:

STRAUB & POKOTYLO
1 Bethany Road
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Hazlet, New Jersey 07730.

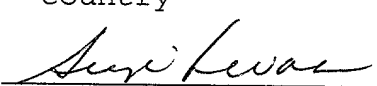
Direct all telephone calls to: (732) 335-1222.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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